



City of Tigard

*Engineering Department
Capital Improvement Division*

Capital Improvement Program Progress Report Calendar Year 2005



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STREET PROJECTS

79th Avenue LID

Although staff has developed a 60% complete plan set for this project and the preliminary Evaluation Report found that an LID is feasible, it was determined by Council the level of support for the project may not be enough to justify proceeding with the LID.

Since 79th Avenue is in poor condition through most of the street, staff is exploring the possibility of upgrading sections of the street (segments not part of any proposed developments) by reconstruction of two travel lanes and construction of paved shoulders for pedestrians and bicyclists. Street Maintenance Fee and Gas Tax funds would be used to fund the project. If approved by Council, the proposed improvements would be included in the FY 2006-07 CIP.



79th Avenue – looking south

Bull Mountain Road (at Hwy 99W)

This project widens the existing eastbound right-turn lane on Bull Mountain Road to improve turning movements and capacity. To construct the improvements, various infrastructures within the work limits will require relocation including storm drainage & sanitary sewer facilities and streetlights. The conceptual design is being reviewed by Washington County. Construction is scheduled to be completed by July 2006.

Commercial Street (at Main Street)

This project was completed using the Gas Tax Fund to provide a safer turning radius for vehicles turning right onto Main Street from Commercial Street. The northeast curb return radius was enlarged from less than 15 feet to 30 feet. In addition to this improvement, the curb/sidewalk was replaced and the deteriorated pavement at this intersection was rehabilitated. The intersection was then painted with new crosswalk striping.



Main/Commercial (Before)



Main/Commercial (After)

Commercial Street Sidewalk – Phase 1 (Lincoln to Main Street)

This project involves construction of half-street improvement with sidewalk on the north side of the street. Funding for the project will be provided through a Community Development Block Grant (CDBG) with Tigard providing local matching funds. Completion of the project would provide a safe and convenient pedestrian access to downtown services and the planned commuter rail station. Design is currently underway with construction scheduled to begin in the summer of 2006. This schedule, however, is contingent on the City's acquisition of railroad right-of-way.



*Commercial St
(Looking west towards Lincoln St)*



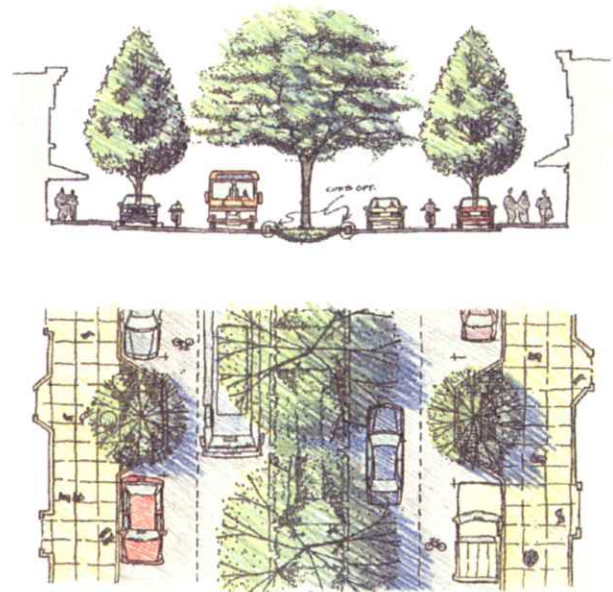
*Commercial St
(intersection of Main St)*

Downtown Comprehensive Streetscape Plan

The Tigard Downtown Improvement Plan, which was recently completed, identifies eight “catalyst projects” and smaller-scale “brand-Tigard” projects with the potential to enhance the development environment of downtown Tigard.

The first step towards implementation of the catalyst projects is to create a Comprehensive Streetscape Plan for the downtown area. A consultant has been selected to perform the design services. The overall theme plan, street functional improvements and green street design strategies will be developed by the consultant and staff. The project is expected to begin in late November and is scheduled to be complete by June of 2006.

This project will have a high public profile. The public process to develop the plan will include numerous discussions, meetings and presentations to the general public to ensure partnership, enthusiasm and real sense of project involvement from the people.



Sample of Conceptual Design

Durham Road Signalization (at 108th Ave)

Traffic south of Durham Road attempting to turn left from 108th Avenue onto Durham Road experiences excessive delay. Whenever the gaps in the traffic flow are infrequent, the left-turn movement becomes highly difficult and is often unsafe. The problem will become worse as the residential developments along 108th south of Durham are completed and generate an increase in traffic volumes at this intersection.

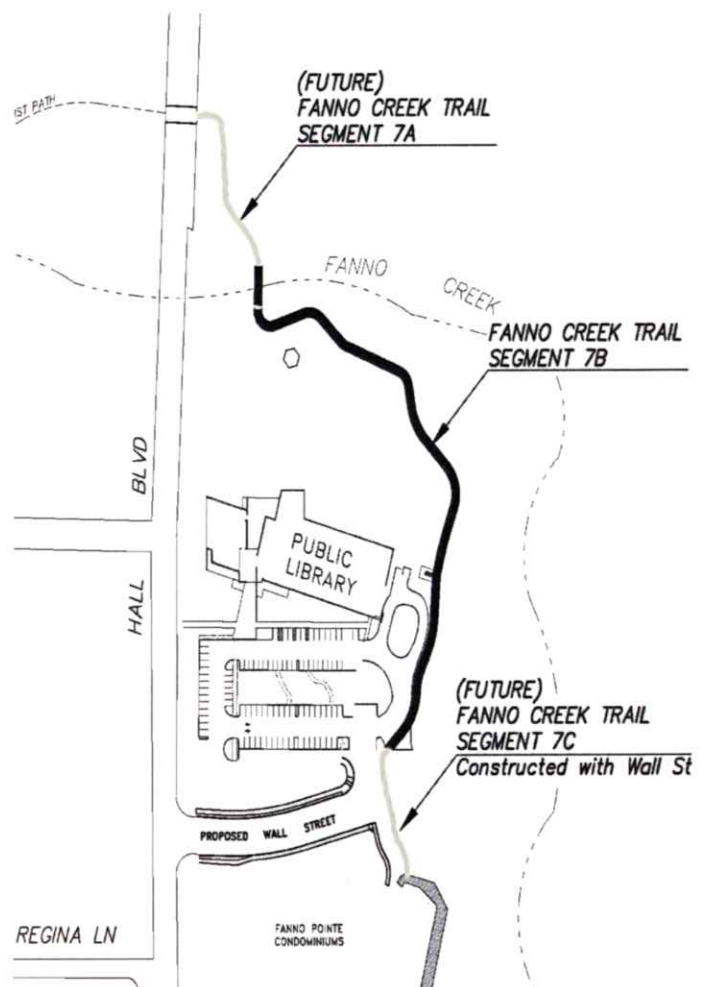
A traffic study conducted by a consultant indicates a signal is warranted at the intersection. The design will be a joint effort between City staff and a traffic consultant to produce a set of design plans ready for bids in the early summer of 2006.

Fanno Creek Trail – Segment 7B

This segment of trail is part of the Fanno Creek Trail system, which runs through the City of Tigard from Beaverton to Tualatin. This project installs an 815-foot long by 10-foot wide Portland cement concrete trail, which will begin from just south of Fanno Creek on the library site, then meander along the creek, and end at the proposed Wall Street.

Completion of the trail segment north of Fanno Creek to connect to Hall Boulevard awaits the resolution of a crosswalk location connecting the existing trail west of Hall Boulevard to the new trail. Location of the crosswalk is under review by the Oregon Department of Transportation (ODOT).

Andersen Pacific, who was awarded the contract, began working in November 2005 and should complete the project before the end of the year.



Hall Blvd Sidewalk (Spruce to 800ft south)



Hall Blvd – Sidewalk needed

As a continuation of the sidewalks constructed on Hall Blvd in 2004 between Hwy 99W and Pfaffle Street, additional sidewalks will be installed along the west side of the street from Spruce Street to 800 feet south to improve safety for pedestrians. Some existing telephone and power poles will be relocated to provide space for the new sidewalks.

The project will be funded by CDBG funds with local matching funds provided by the City. Construction is scheduled for the spring of 2006.

Hall Blvd Sidewalk (at Bonita)

This project is one of the sidewalk improvement projects funded by the Gas Tax fund in FY 2005-06. The intent is to fill gaps between existing sidewalks and to enhance pedestrian access to transit stops. A new sidewalk which will be installed on the west side of Hall Blvd across from Bonita Road, will be constructed be wide enough to accommodate a bus shelter to be installed by Tri-Met in the future, if needed. The design of the project is underway and will be advertised for bids in February 2006.

Hall Blvd at McDonald Traffic Study

The first phase of this project is the design and acquisition of right-of-way for construction of a southbound right-turn lane on Hall Boulevard at McDonald Street, as required by the conditions of approval for the development of the Library. In addition to widening the street, curb and sidewalk are proposed along the new segment of the street to improve pedestrian safety. An ODOT permit will be required for the design and construction of the project. A traffic study will be conducted to identify required design elements that need to be incorporated into the project. The preliminary design is scheduled to be completed by the end of this year. Construction of the project is tentatively scheduled for FY 2006-07.

Hall Blvd Signalization

This project is part of the Hall Blvd/Wall Street – Phase 2 project involving construction of a portion of Wall Street east of Hall Blvd to provide joint access for the library and the Fanno Pointe condominiums. That project included installation of a traffic signal system at the Hall Blvd/Wall Street intersection. Because of the lengthy process envisioned for the issuance of a Sensitive Lands permit for construction of Wall Street and because pedestrian safety is a major concern at the library entrance, the project was sub-divided into two phases to accelerate the completion of the signal. Construction of the signal began in July 2005 and is anticipated to be completed by December 2005.

Highway 99W Corridor Improvement & Management Plan

Highway 99W carries over 50,000 vehicles per day, half of which is regional through traffic. This highway is currently overwhelmed by the existing traffic volumes. There are no significant parallel routes to this highway, and the traffic congestion will continue to worsen as traffic increases during the next few years. The intersections of Highway 99W with Hall Boulevard, Greenburg Road, and McDonald Street are bottlenecks that seriously hamper the smooth flow of traffic. At peak travel hours, cut-through traffic uses the City of Tigard's collector and arterial system to avoid the Highway 99W traffic congestion. This traffic adversely impacts the arterial and collector street system in the City.

The City has received a Transportation and Growth Management (TGM) grant to develop the plan. The development of the plan is anticipated to begin in April 2006. The study will evaluate various alternatives for improvement of the highway (including development of new parallel routes and connections that can feasibly be made between developments parallel to the highway) between Durham Road and Interstate 5. The intent of the study is to address current traffic deficiencies, present design alternatives and propose strategies that would provide for effective traffic circulation, connectivity and operational improvements to the highway and its corridor. The study would provide a plan for management of the corridor and a package of projects (both large and small) that can be implemented over a period of years as funding sources are identified and designated for these projects.

McDonald Street (at Hwy 99W)

McDonald Street is classified as a collector carrying over 8,500 vehicles per day. The Hwy 99W/Gaarde St/McDonald Street intersection operated at an unacceptable level of service and long queues tended to form on the Gaarde and McDonald legs of the intersection.

The City of Tigard Transportation System Plan (TSP) calls for the intersection to be improved. The Hwy 99W/Gaarde Street intersection was improved as part of the Gaarde Street – Phase 2 project completed in 2004. This McDonald Street Improvement project, which was recently completed in August 2005, has resulted in a considerably improved level of service at the intersection. In addition, the project installed curbs and sidewalks on both sides of the street between Hwy 99W and 105th Avenue.

McDonald Street, after improvements, has dedicated left-turn and right-turn lanes, and west-bound and east-bound through lanes that provide east-west movement of traffic at the intersection without impacting the traffic performance of the highway.



*McDonald St – (Before)
poor turning movements*

North Dakota Crosswalk

This project, which began in early March 2005, involved the installation of a mid-block crosswalk for pedestrians to walk between the two trail segments, which are approximately 350 apart at the North Dakota Street connection. The street was widened on the north side, which required the installation of a 12-inch storm drain pipe to replace an existing ditch and accommodate the widening. The new crosswalk has been striped with a high visibility pattern and signed accordingly.



North Dakota Crosswalk

The project was completed by Accord Construction in early May 2005.

Pavement Major Maintenance Program (for FY 2004-05)

The City of Tigard has been hard at work this entire summer on street maintenance projects funded through the Street Maintenance Fee. This new fee provides a stable source of revenue to help the City address a considerable backlog in street maintenance projects. When applied early, preventative maintenance treatments used as part of a pavement preservation strategy will cost significantly less than the reconstruction & rehabilitation of streets that are allowed to deteriorate.



72nd Avenue (Before)



72nd Avenue (After)

The program for FY 2004-05 was divided into two phases. Phase 1 was completed in the summer of 2004 and Phase 2 was completed this past spring. Both included overlay treatments on:

Phase 1

- **66th Ave** (south of Oak Street)
- **67th Ave** (south of Oak Street)
- **72nd Ave** (Spruce to Oak Street)
- **110th Ave** (Fairhaven to Park)
- **Derry Dell Court** (Park to Watkins Ave)
- **James Ct** (west of Howard Drive)
- **Park Street** (110th to Watkins Ave)
- **Ventura Ct** (Barbara Ln to Ventura Dr)

Phase 2

- **72nd Ave** (Hwy 217 to Fir Lp)
- **121st Ave** (Springwood to Ann St)

There was approximately 25,000 SY or 2800 tons of asphalt concrete placed on the streets.

Pavement Major Maintenance Program (for FY 2005-06)

The Fiscal Year 2005-06 program began in July 2005 with Phase 1, which included:

- **66th Ave** (Taylor's Ferry Rd to end)
- **69th Ave** (North of Oak)
- **89th Ave** (Spruce St to end)
- **98th Ave** (Murdock St to Sattler St)
- **109th Ave** (Naeve to end)
- **124th Ave** (Marion St to James St)
- **Alberta St** (121st Ave to end)
- **Elmhurst St** (121st Ave to end)
- **James St** (121st Ave to 124th Ave)
- **Jefferson St** (South of Locust)
- **Katherine** (128th Ave east 400ft)
- **Marion St** (121st Ave to 124th Ave)
- **Murdock St** (103rd to Elementary School entrance)
- **Pfaffle/Hall Blvd** (intersection)
- **Spruce St** (Hall Blvd to 89th Ave)
- **Thorn Street** (89th Avenue to end)

In addition to providing treatments on existing paved streets, the City also paves gravel streets such as at 89th Avenue, 109th Avenue and Thorn Street to eliminate future maintenance costs, which may increase greatly when the streets are not maintained in a timely manner.



Thorn Street (Before)



Thorn Street (After)



68th Parkway

Phase 2 is currently under design and will include:

- **69th Parkway** (99W to Haines St)
- **136th Ct** (Walnut Ln to end)
- **Greenburg Rd** (Center St to N. Dakota St)

Construction of Phase 2 is scheduled for the spring of 2006.

Pine Street Reconstruction

Pine Street is a narrow roadway located in the northeast quadrant of the City. The street has no shoulders, sidewalks or curbs. The pavement surface has extensive longitudinal and transverse pattern cracking and numerous patches along the travel lanes. It also has an inadequate drainage system and two significant curves that limit visibility and speeds. The main goal of this project is to reconstruct the street to provide proper drainage and improve rideability. Construction of the improvements is scheduled for late spring of 2006.



Pine Street at west end

Ultimate improvements to the street including correction of the existing curves, installation of sidewalks and construction of the street to the ultimate width, will be performed in the future when funding is available.

School Zone Signing

This is a Citywide upgrade to all school signing to alert drivers when they are entering and leaving the school zones. This was initiated in compliance with the new state law regarding speeds in school zones. All upgrades were completed in June.

Street Striping Program (for FY 2005-06)

This is a program to maintain existing striping on City streets to enhance safety and provide proper channelization for traffic movements. Striping, pavement markings and pavement markers were placed on the following streets:

- **68th Avenue** - (Dartmouth St to Atlanta St)
- **69th Avenue** - (Hampton St to Dartmouth St)
- **Bonita Road** – (at bridge)
- **Dartmouth** -(69th Ave to 500' west of 72nd)
- **Johnson Street** - (Hwy 99W to Grant St)
- **N Dakota** – (114th Ave to Tiedeman St)
- **N. Dakota** (121st Ave to Springwood Dr)
- **Pfaffle Street** – (500' west of Hall to 83rd)
- **Shady Lane**- (Greenburg Rd to 95th Ave)



Pfaffle (After)

The contract was awarded to Apply-a-Line, Inc., who provided 49,000 lineal feet of new striping on the streets.

Traffic Calming Program (for FY 2004-05)

This program focuses on reducing high traffic speeds on residential streets. Speed humps typically reduce speeds by 4 to 6 mph and are frequently requested by residents. The installation of speed humps are a major part of the program. Speed humps are normally installed by the City's Public Works crews during the summer or spring each year. This year's program installed 4 speed humps. The streets which received speed humps are:

- **Fern Street** (Ascension Drive to 138th Avenue) - 1 hump
- **Park Street** (Walnut to 110th Ave)- 2 humps
- **Summerlake Drive** (Scholls Ferry Road to Springwood Drive) – 1 hump



***Park Street
(overview)***



***Park Street
(approaching speed hump)***

Tualatin River Path

This project connects the existing Cook Park pathway to the proposed Tualatin River pedestrian bridge, which is scheduled for construction by the City of Tualatin in 2006.



Existing trail condition

The work includes construction of a 10-foot wide by 1350-foot asphaltic concrete pathway with gravel shoulders. Completion of the project will fill a key gap in the existing riverside trail system and provide community access to the future pedestrian bridge. Construction is scheduled for the spring of 2006.

Wall Street

This project constructs a portion of Wall Street to provide common access to Hall Blvd for the library and the Fanno Pointe condominiums as required by the Oregon Department of Transportation (ODOT). The design of the project is substantially completed. A Sensitive Lands permit application has been submitted to the City.

Construction of the project is tentatively scheduled to begin in April 2006 and is expected to be completed in December 2006.

Walnut Street – Phase 3 (135th to 121st Ave)

This project is the last phase of a three-phase project funded through the Washington County MSTIP 3.

The first phase constructed the Walnut/Gaarde intersection, widened the approaches & installed a traffic signal at the intersection. The City designed and constructed the project and was reimbursed by Washington County for all costs, excluding water, sanitary sewer and utility improvements. This project was completed in 2001.

The second phase improved the Walnut/121st Avenue intersection, which was completed by the County in 2002.

Phase 3, which began last spring, widens Walnut to provide 44 feet of paved roadway with two travel lanes, a center turn lane and two bike lanes. Sidewalks will be installed to enhance pedestrian safety. This project also reconfigures the Walnut St/Walnut Ln/135th Ave intersection to improve traffic circulation and correct an unusual three-legged street connection (see Figure1). Certain improvements, such as extension of sanitary sewer lines on Fern & Walnut Street, are included as part of the project and is funded by the City.

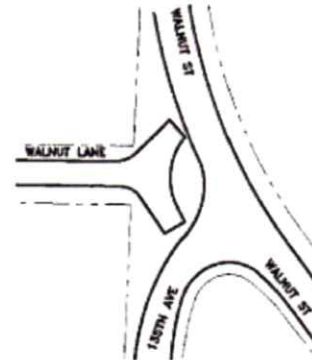


Figure 1



**Existing Walnut Street
looking west from 123rd Avenue**



**Walnut Street (Winter 2005)
looking east from Gaarde St.**

SANITARY SEWER PROJECTS

Benchview Sanitary Sewer Maintenance Road

Approximately 250 feet of the existing maintenance access road has been severely eroded by storm water from a nearby subdivision.

A contract was awarded to Henderson Land Services to design a wall (using bio-engineering concepts) to retain the bank. The consultant will also design a storm drain system to better direct the drainage from the subdivision into the creek.

All necessary permits will be obtained in November and this project will be bid immediately after.



***Benchview Terrace Maintenance Road
Erosion exposing a Sewer Manhole***

Slope Stabilization (at Quail Hollow West Subdivision)



***Slope Stabilization
Initial excavation***

This project is necessary in order to protect a public sanitary sewer line that was installed by the developer of the Quail Hollow West subdivision. The work is located in a natural drainageway flowing through the subdivision. The banks of the drainageway have sloughed in certain areas, and threatened to undermine or exposed the sanitary sewer line. In addition, the erosion of the banks threatens adjacent homes along the top of the banks.

The project involved re-grading and stabilizing the slope and re-planting native species and new trees. Elting Northwest, Inc. began construction the beginning of May and completed the construction in the middle of October 2005.

Citywide Sewer Extension Program

This 5 year-program, which began in FY 2001-02, extends sanitary sewer services to all developed but un-sewered areas Citywide. The City initiates and completes the sewer extensions, then recoups the total cost of the design and construction via creation of a reimbursement district. As residents connect to the new sewer line, they have to pay their proportionate share of the cost of the line, plus the normal connection fee.

The following 5 districts were constructed in 2005 and provided 69 connections to existing homes.

- ***117th Avenue - Sanitary Sewer Reimbursement District No. 34*** (4 lots)
- ***Ash Avenue - Sanitary Sewer Reimbursement District No. 36*** (9 lots)
- ***Fern Street - Sanitary Sewer Reimbursement District No.32*** (5 lots)
- ***O'Mara & Edgewood - Sanitary Sewer Reimbursement District No. 31*** (46 lots)
- ***Walnut Street - Sanitary Sewer Reimbursement District No. 33*** (5 lots)



Fern Street
(After sewer installation & overlay)



117th Avenue
(After sewer installation & 2-inch overlay)



O'Mara Street
(Pipe placement at Senior Center)

STORM DRAINAGE PROJECTS

70th Avenue Storm Drainage Improvements

Over the past several years this area has been prone to flooding on the downhill side due to excessive runoff from the top of the hill and a limited catch basin collection system. This project involved the installation of approximately 300 LF of pipe, three new catch basins and the upgrading of three existing basins. As a part of this project, the street was given a 2-inch asphalt overlay.

The project contractor, Paul Lambson Construction, began working on this project in January of 2005 and completed the work at the end of February 2005.



70th Avenue

Bonanza Way Erosion Control (south of Riverwood Drive)



*Bonanza Way
Erosion Control Improvements*

The existing outfall south of Bonanza Way was severely eroded and in need of repair. The outfall pipe was positioned high above the channel therefore causing a large amount of erosion.

The City contracted with Clean Water Services to perform the necessary work to eliminate the erosion problem.

The work was completed in late summer 2005.

Derry Dell Sanitary Sewer Wetland Mitigation

This project enhances wetland areas and vegetated corridors along Derry Dell Creek at 110th Avenue. The enhancement is required by environmental permits due to impacts created by the installation of a sanitary sewer pipe across the creek. Willows and Oregon Ash trees have been planted in the work area. Invasive species such as blackberry and English ivy have been removed. As with the Gaarde Mitigation projects above, if the plants survive at required rate, this mitigation work will also be completed in 2008.

Gaarde St - Phase 2 Wetland Mitigation

This project provides mitigation measures that were required by environmental permits to offset the loss of 0.009 acres of wetland associated with the widening of Gaarde Street. Work completed this year includes improvements of 1180 square feet of wetland by removing reed canary grass and establishing a vegetated corridor mitigation plan along the Fanno Creek Greenway immediately north of Tigard Street. If the new plants survive at the rate indicated by the permit requirements, the mitigation work will be completed in 2008.

Highland Drive Storm Drainage

The existing storm drainage system on Highland Drive from 109th Ave to approximately 1,100 feet east of the Highland/109th intersection consists of 12-inch pipes that have been crushed in numerous places and are beginning to fail. This project includes installation of new pipes, manholes and upgraded catch basins. In addition to storm drainage improvements, a new pavement overlay will be applied on the street using the Street Maintenance Fee fund. The improvements are scheduled for the spring of 2006 (the project will be advertised for bid as one project). Construction coordination would be more efficient if both projects are handled simultaneously by the same contractor.

Rockingham Storm Drain



Installation of Manhole

This project replaces an undersized storm drain inlet located near Rockingham Street west of the 132nd/Greenfield Drive intersection. The inlet, which is located at the end of an unnamed tributary creek, was not sized large enough to handle the winter runoff from nearby subdivisions. This project replaces the inlet with an oversized manhole and properly directs the runoff into the manhole using a 54-inch metal end section. Construction of the project was completed recently. So far, the system has been operating effectively and should be capable of passing through large amounts of water, if needed, during heavy storms.

Summerlake Maintenance Bridge

Three existing storm drain culverts under a pedestrian path are undersized and are not providing adequate flow during high water periods. It has been determined that installation of a small bridge in place of new culverts would be less restrictive for the flow and would minimize the impacts on the existing wetlands.

Western Woods Products, has been awarded a contract to supply and install the bridge in January of 2006.

SURVEY PROJECTS

Below are lists of the various topographic survey and construction staking work performed throughout this calendar year.

Topographic Survey for Design Projects:

1. Highland Drive Storm Drainage
2. 108th & Durham Signal
3. 72nd Avenue Profile
4. Summerlake Culvert/Bridge
5. Benchview Sanitary Sewer Access Rd
6. McDonald/99W Improvements
7. Hall Blvd. Sidewalk
8. 79th Avenue LID
9. 79th Avenue Sanitary/Storm Sewer Improvements
10. Rockingham Storm
11. Bull Mountain/99W Improvements
12. Fanno Creek Trail – Segment 7B
13. Tualatin River Path
14. Fairhaven Sanitary Sewer District
15. McDonald/87th Avenue Sanitary Sewer District

Construction Staking Projects:

1. 70th Avenue Storm Drainage
2. North Dakota Crosswalk
3. McDonald/Hwy 99 Road Widening
4. Omara/Edgewood Sanitary Sewer
5. 117th Avenue Sanitary Sewer
6. Rockingham Storm Drainage
7. Ash Avenue Reimbursement District
8. Fanno Creek Trail – Segment 7B

Miscellaneous Projects:

1. 125th Ave well elevation
2. Fred Field License
3. Gaarde Street monumentation
4. Omara/Edgewood monumentation
5. Library tree monitoring
6. Main Street right of way determination
7. Commercial St. right of way determination
8. Anderson monumentation survey
9. Urban renewal district
10. Review of 12 subdivisions, 9 minor land partitions and 6 annexations